

## STN Karlsruhe

L3 ANSWER 1 OF 1 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2002-393539 [42] WPIDS  
 DOC. NO. CPI: C2002-110599  
 TITLE: Polysiloxane polymers, useful as a wash resistant hydrophilic softener, in cosmetic formulations for skin and hair care and in polishes, containing amine and ammonium groups.  
 DERWENT CLASS: A26 A87 A96 A97 D21 D25 F06-  
 INVENTOR(S): FIRSTENBERG, D; KROPFGANS, M; LANGE, H; MOELLER, A; SCHNERING, A; SOCKEL, K; STACHULLA, K; TEUBER, S; WAGNER, R; WITOSSEK, A; MOLLER, A  
 PATENT ASSIGNEE(S): (GENE) GE BAYER SILICONES GMBH & CO KG; (FIRS-I) FIRSTENBERG D; (KROP-I) KROPFGANS M; (LANG-I) LANGE H; (MOLL-I) MOLLER A; (SCHN-I) SCHNERING A; (SOCK-I) SOCKEL K; (STAC-I) STACHULLA K; (TEUB-I) TEUBER S; (WAGN-I) WAGNER R; (WITO-I) WITOSSEK A  
 COUNTRY COUNT: 97  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
WO 2002010259	A1	20020207	(200242)*	GE	47	C08G077-54<--	
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW							
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW							
AU 2001083963	A	20020213	(200242)			C08G077-54	
EP 1311590	A1	20030521	(200334)	GE		C08G077-54	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR							
JP 2004519528	W	20040702	(200443)		78	C08G077-54	
US 2004138400	A1	20040715	(200447)			C08G077-26	
MX 2003000809	A1	20030901	(200465)			A61K007-06	

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002010259	A1	WO 2001-EP8695	20010727
AU 2001083963	A	AU 2001-83963	20010727
EP 1311590	A1	EP 2001-962879	20010727
		WO 2001-EP8695	20010727
JP 2004519528	W	WO 2001-EP8695	20010727
		JP 2002-515986	20010727
US 2004138400	A1	WO 2001-EP8695	20010717
		US 2003-333865	20031112
MX 2003000809	A1	WO 2001-EP8695	20010727
		MX 2003-809	20030127

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001083963	A Based on	WO 2002010259
EP 1311590	A1 Based on	WO 2002010259
JP 2004519528	W Based on	WO 2002010259
MX 2003000809	A1 Based on	WO 2002010259

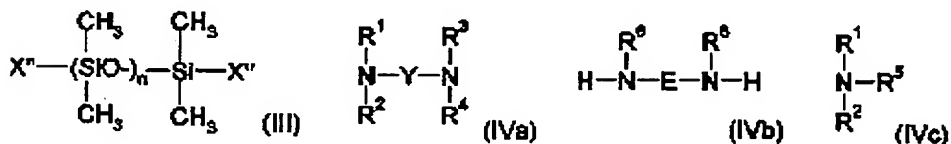
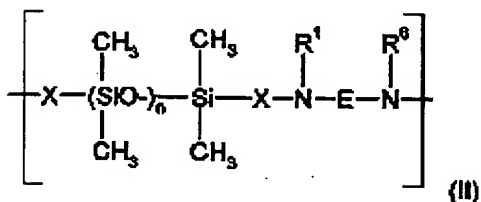
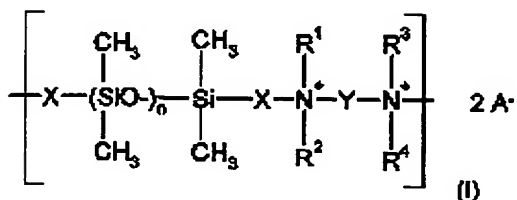
STN Karlsruhe

PRIORITY APPLN. INFO: DE 2000-10036536 20000727

INT. PATENT CLASSIF.:

MAIN: A61K007-06; C08G077-26; C08G077-54  
 SECONDARY: A61K007-00; A61K007-075; C08G077-46; C09J103-00;  
 C09J189-00; D06M015-643; D06M015-647

GRAPHIC INFORMATION:



# BASIC ABSTRACT:

WO 200210259 A UPAB: 20020704

NOVELTY - Polysiloxane polymers comprising amine and ammonium groups are claimed.

DETAILED DESCRIPTION - Polysiloxane polymers have repeating units of formula (I) and (II):

X = at least 4C hydrocarbon having at least one hydroxyl group optionally containing an -O- linkage;

Y = at least 2C hydrocarbon having a hydroxyl group and containing -O- or -N- linkages;

R1-R4 = 1-4C hydrocarbon or benzyl or R1 and R3 or R2 and R4 are optionally components of a bridging alkylene group;

R6 = H or 1-20C alkyl;

E = -B-O-(EOx)<sub>v</sub>(POx)<sub>w</sub>-B-;

EOx = ethylene oxide unit;

POx = propylene oxide unit;

B = 2-6C alkylene;

v, w = 0-200;

v+w = at least 1;

n = 2-1000; and

A- = inorganic and organic ion.

An INDEPENDENT CLAIM is included for a process for the production of polysiloxane polymers by reaction of a bis epoxide terminated polysiloxane of formula (III) with a bis amine of formula (IVa) and (IVb) in any order, optionally with addition of a monoamine of formula (IVc).

X = at least 4C divalent hydrocarbon having an epoxy group and optionally containing -O- linkages.

USE - The polysiloxane polymer (I) is useful as a wash resistant

STN Karlsruhe

hydrophilic softener on the basis of a quaternary ammonium group containing siloxane for textiles or in cosmetic formulations for skin and hair care, in polishes for the treatment of hard surfaces, in formulations for the drying of automobiles and other hard surfaces following machine washing, for the care of textiles and textile fibers, as a separate softener following the washing of textiles with non-ionic or anionic/nonionic detergent formulations, as a softener in non-ionic or anionic/nonionic surfactant formulations for the washing of textiles (claimed).

ADVANTAGE - The polysiloxane polymer has improved resistance to washing.

Dwg.0/0

TECHNOLOGY FOCUS:

WO 200210259 A1UPTX: 20020704

TECHNOLOGY FOCUS - POLYMERS - Preferred Composition: The polysiloxane polymer is a cyclic or linear polymer of formula (V) or (VI):

Z1 = H, OH, alkyl, epoxy or alkoxy or at least 4C hydrocarbon having at least one OH group, optionally containing at least one -O- linkage or is of formula (VII) or (VIII);

R5 = 1-20C alkyl;

Z2 = formula (IX);

n = 5-200 (5-20);

m, s = at least 1;

X = formula (X)-(XV);

Y = -(CH<sub>2</sub>)<sub>o</sub>;

o = 2-6;

R = -CH<sub>3</sub>;

B = -CH<sub>2</sub>CH<sub>2</sub>- or -CH<sub>2</sub>CH(CH<sub>3</sub>)-;

R1-R4 = CH<sub>3</sub>;

v, w = 0-100 (0-70), preferably 0-40; and

A- = A- is chloride, bromide, hydrogensulfate or sulfate or acetate, propionate, octanoate, decanoate, dodecanoate, tetradecanoate, hexadecanoate, octadecanoate or oleate. The polysiloxane polymer (I) is in protonated form as a amine salt.

FILE SEGMENT: CPI

FIELD AVAILABILITY: AB; GI

MANUAL CODES: CPI: A06-A00E; A12-G; A12-V04; A12-W12A; A12-W12C;  
D08-B03; D08-B09; D11-A02B; D11-B15; D11-D01B;  
F03-C05

**THIS PAGE BLANK (USPTO)**